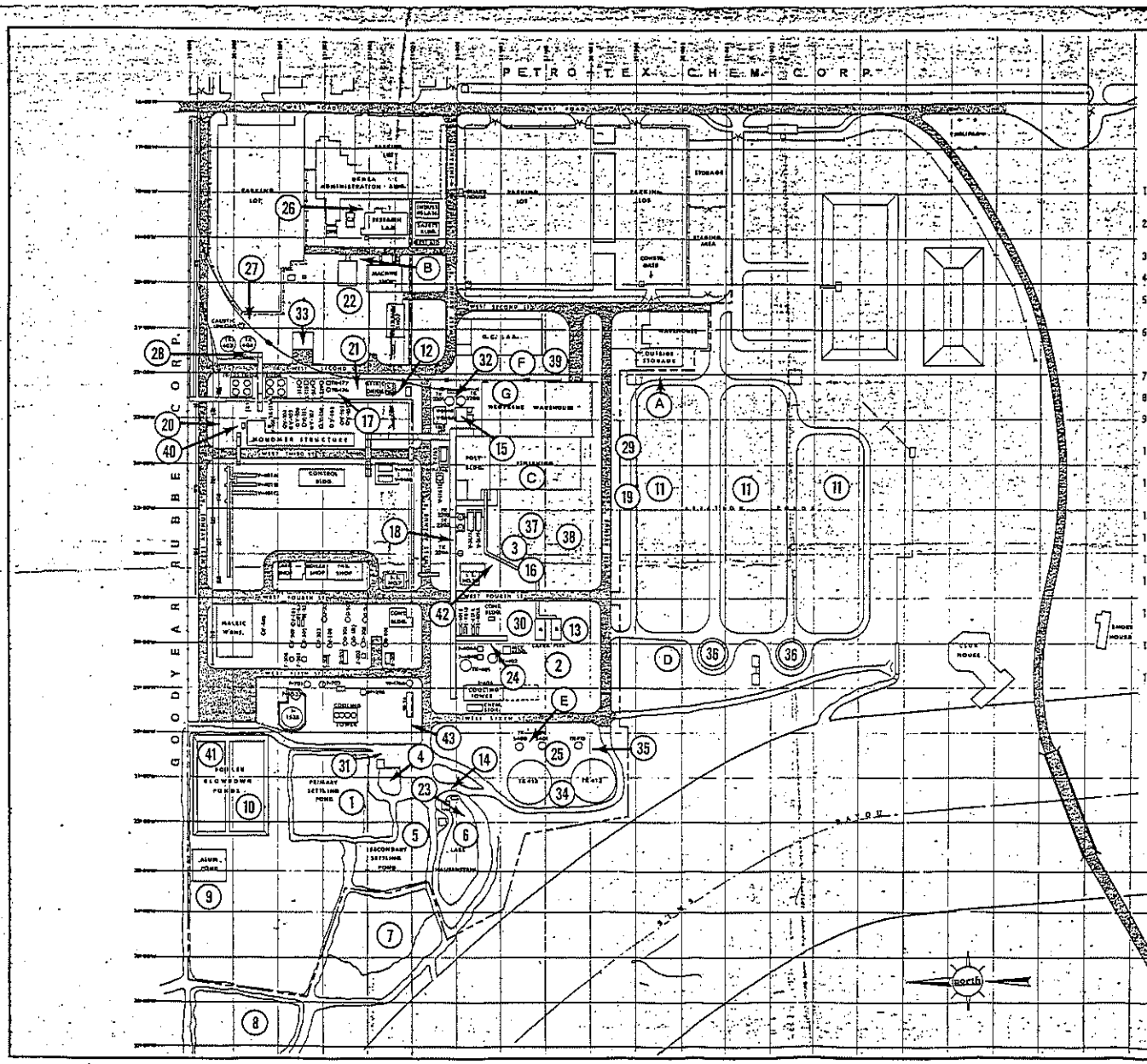
# FIGURE 5-1 LOCATION OF SWMUS AT DENKA CHEMICAL




## LEGEND:

### SWMU's

1. Maleic Pond - Upper Section
2. Process Waste Storage Area
3. Waste Pile
4. Imhoff Pond
5. Maleic Pond - Lower Section
6. Lake Hausenstein (Storm Water Pond)
7. Solar Pond
8. Anaerobic Pond
9. Alum Clarifiers
10. Two Boiler Blowdown Ponds
11. Three Aeration Ponds
12. Skimmer Pit
13. Two Latex Pits
14. Splitter Box
15. RCP Washdown Pit
16. Latex Trench
17. Chemical Trench System
18. Clean Storm Water Drainage Ditch
19. Ditch Alongside Aerator Ponds
20. Ditch Alongside Rail Line of Monomer Plant
21. Monomer Plant Sump
22. Solvent Storage Sump
23. Lift Station - Lake Hausenste
24. Unidentified Sump-Tank 402
25. Abandoned Sump Tank 413
26. Drum/Tanks Bay
27. Caustic Unloading Area
28. Tank Truck Unloading Pad
29. Processed Neoprene and Latex Wastes
30. Latex Pits Pad
31. HEB Cleaning Pad
32. Tank Car Load Area
33. Coke Storage Area Pad
34. Tank 412 and 413
35. Tank 415
36. Two Clarifiers
37. Asbestos Roll-Off Bin
38. Empty Drum Storage Area
39. QC Lab Waste Drum Storage Area
40. Spent Catalyst Storage Area at Monomer Plant
41. Spent Catalyst Storage Area at Maleic Warehouse
42. Roll Off Bin at Latex Trench
43. Incinerator

### AREAS OF CONCERN

A. Outside Storage Area
B. Battery Storage Area
C. Oil Spill on Building
D. Maleic Anhychide Stream Sampling Station
E. Diesel and Gasoline Tank Storage Area
F. Dispensing Station for Solvents and Oils
G. Two Recovered Chloroprene Tanks

DENKA CHEMICAL CORPORATION

DENKA USA

Plot Plan

DWG. NO.

### 5.3.11 SWMU 22 - Solvent Storage Area Sump (Reference 64)

#### 5.3.11.1 Unit Summary

Unit Description: Near the front office, product solvent drums are stored. This storage area drains to a below-grade, concrete sump located at one corner. Covered by a grate, the sump empties to the Skimmer Pit (SWMU 12). The sump is about 3 feet deep, and 3 feet square (64). There was no observable staining or residue in the sump at the time of the VSI.

Dates of Operation: The unit has operated since the 1970s. There is no plan for closure (64).

Wastes Managed: Spillage and runoff from the area is collected in the sump and conveyed immediately to the Skimmer Pit. Potential spillage includes oil, kerosene, and a variety of solvents. No wastes are actually stored at the location (64).

Release Controls: The area is curbed and sloped toward the sump. The sump is apparently unlined. There were no cracks visible.

History of Releases: There was no evidence of release.

#### 5.3.11.2 Conclusions Regarding Potential for Release

Air: Due to the use of solvents, there is a potential for past and continuing release to the air.

Groundwater/Soils: Due to the design and operation of the unit, there would appear to be a low potential for past and continuing release.

Surface Water: Due to unit design and volume of wastes managed, there appears to be a low potential for past or continuing release.

Surface Gas: Due to the unit design, there appears to be a low potential for subsurface gas generation.

### 5.3.12 SWMU 23 - Lift Station at Lake Hausenstein (Reference 64)

#### 5.3.12.1 Unit Summary

Unit Description: Facility representatives (64) could provide little information concerning the unit except that it functions as a lift station (flow-through device) in conveying runoff from process areas to Lake Hausenstein. The unit is circular and set into the ground to a depth of about 10 feet. It is 3 feet in diameter. An inlet pipe brings liquids into the unit, and a single pipe provides an outlet for liquids that are pumped to Lake Hausenstein. The unit extends about 2.5 feet above the ground surface, and is unlined. Cracks were evident along the spill collection catch ring near the lip of the unit.

Dates of Operation: The date of construction was probably in the 1970s. There is no plan for closure.

Wastes Managed: Latex wastewater was viewed in the unit. It may have drained into the lift station from the spillage at Tank 412 (SWMU 35).

Release controls: The lip of the open-topped unit displayed an overflow trough, although it was cracked. Any spillage would drain to Lake Hausenstein.

History of Releases: There was no evidence of release at the time of the VSI.

5.3.12.2 Conclusions Regarding Potential for Release

Air: There did not appear to be any potential for past or continuing release from the unit given its design and the nature of the wastes handled.

Groundwater/Soil: Based on design and operational aspects, there appears to be a low potential for release from this unit on a past or continuing basis.

Surface Water: Based on unit design, there appears to be a low potential for past or continuing release from the unit.

Subsurface Gas: Based on unit design, there appears to be a low potential for past or continuing release from the unit.

### 5.3.13 SWMU 24 - Sump at Tank 402 (Reference 64)

#### 5.3.13.1 Unit Summary

Unit Description: This 5 foot square by 5 foot deep sump handled wastewater from the Maleic Production Plant. Located near tanks 401 and 402, the unit is constructed of concrete, extends 6 inches above grade, and is topped by a grate. Most of the unit lies below-grade.

Dates of Operation: Probably constructed in the 1960s, the unit has no expected date of closure.

Wastes Managed: Wastewaters containing trace maleic compounds are expected.

Release Controls: The unit has no special control other than pumps, the 6-inch extension above grade.

History of Releases: There was no evidence of any release.

#### 5.3.13.2 Conclusions Regarding Potential for Release

Air: There appears to be a low potential for release, both on a past and continuing basis, due to the nature of the waste.

Groundwater/Soils: Due to the absence of staining and the lack of cracks or erosion in the unit, there appears to be a low potential for past or continuing release to these media.

Surface Water: Due to the low volume of wastes, there appears to be a low potential for past or continuing release to this media.

Subsurface Gas: Due to unit design, there appears to be a low potential for past or continuing release to this media.

### 5.3.14 SWMU 25 - Abandoned Sump at Tank 413 (Reference 64)

#### 5.3.14.1 Unit Summary

Unit Description: This below-grade, concrete box, extends to a depth of about 10 feet, and appeared to have lateral dimensions of 10 feet by 12 feet. The unit was inactive and contained piping and pumps (64).

Dates of Operation: The unit initiated operation in the 1970s. No date was available as to when it was abandoned.

Wastes Managed: No wastes are handled at this time. The unit handled wastes now managed by Tanks 412 and 413 (SWMU 35). Trace hazardous constituents are expected.

Release Controls: The unit is below-grade with no other apparent controls.

History of Releases: There is no documented evidence of release. However, the unit's surface appeared eroded.

#### 5.3.14.2 Conclusions Regarding Potential for Release

Air: There did not appear to be a potential for continuing release. Past potential was unknown.

Groundwater/Soil: As the unit was unlined and appeared deteriorated, there is some potential for past release. Since the unit is abandoned, this potential is reduced for continuing releases.

Surface Water: There was no evidence of overtopping, since the unit is abandoned, there does not appear to be a continuing release potential.

Subsurface Gas: Due to unit design, there does not appear to be a past or continuing release potential.

### 5.3.15 SWMU 26 - Drum/Tanks Bay (Reference 100)

#### 5.3.15.1 Unit Summary

Unit Description: A small, grate-covered sump that drains the outside area is located on the west side of the administration/ laboratory building. In this paved area, barrels of product and some small vessels are stored. There did not appear to be significant spillage or staining from any particular vessel or drum. The area reportedly drains to the Skimmer Pit (SWMU 12). Note that the photograph of the unit did not develop, and consequently is not attached.

Dates of Operation: The unit was constructed in the 1960s. There are no plans for closure.

Wastes Managed: A variety of chemicals drain from this area. These chemicals are considered hazardous material.

Release Controls: The area is paved and sloped toward the drain.

History of Releases: There are no documented releases. During the VSI, there were no stains noted.

#### 5.3.15.2 Conclusions Regarding Potential for Release

Air: Due to the unit design, there is no potential for past and continuing release to the air.

Groundwater/Soils: Due to unit design, there is a low potential for past and continuing release to these media.

Surface Water: Due to unit design, there is a low potential for past and continuing release.

Subsurface Gas: Due to the unit design, there is a low potential for past and continuing release.

### 5.3.16 SWMU 27 - Caustic Unloading Area (Reference 100)

#### 5.3.16.1 Unit Summary

Unit Description: As shown in Photograph #7, rail cars that contain caustic unload their contents over drip pans. These drip pans collect and, via gravity, convey any spillage to the Skimmer Pit (SWMU 12). This practice of using drip pans resulted from past releases in the area. The drip pans are composed of aluminum, and they have a connection to a small pipeline that itself connects to the Skimmer Pit. The drip pans are 3 feet by 5 feet in dimension, and about 1-inch deep. They did not appear to be secured to the ground.

Dates of Operation: The pans were installed in 1986. They are currently active.

Wastes Managed: The pans collect caustic when it spills. The caustic would be considered a corrosive waste (D003) if spilled.

Release Controls: The pans are the release control for the caustic unloading area. Any contents are immediately conveyed to the Skimmer Pit (SWMU 12).

History of Release: The pans were installed to control spillage.

5.3.16.2 Conclusions Regarding Potential for Release

Air: As the spillage is conveyed immediately to the pipeline to the Skimmer Pit, there is a low potential for past and continuing release to the air. Before the pans were installed, there was a potential for release as caustic would spill directly on to the bare soil and then evaporate.

Groundwater/Soils: Due to the spillage in the past, there was a moderate potential for soil saturation and migration to the groundwater for some constituents. Given the nature of the material, this potential is reduced now that spillage is controlled by use of the drip pans.

Surface Water: Given the spillage is conveyed to drainage systems that lead to other waste treatment units, there is a low potential for past and continuing release to this media.

Subsurface Gas: Given the nature of the material that previously spilled on to the bare soil, there is a low potential for past release. Since the area is now protected by the drip pans, this potential is further reduced.

## 5.3.17 SWMU 28 - Tank Truck Unloading Pads (Reference 100)

### 5.3.17.1 Unit Summary

Unit Description: As shown in Photograph #8, tank trucks are normally parked in pads near the caustic unloading area. The pads are curbed and sloped to flow to small, sump-like drains. The bays drain to the Skimmer Pit (SWMU 12). There was no standing waste, and the two pads did not exhibit any stains or contain any residues.

Dates of Operation: The bays were constructed simultaneously in the 1980s. They are currently active.

Wastes Managed: Spillage is contained by the curbs. The drains collect spillage and it is conveyed by underground pipe to the Skimmer Pit (SWMU 12).

Release Controls: The pads are curbed, paved, with adequate drainage.

History of Release: There are no documented or observed releases.

### 5.3.16.2 Conclusions Regarding Potential for Release

Air: Due to unit design and operation, there is a low potential for past and continuing release.

Groundwater/Soils: There is a low potential for past and continuing release given the unit design and operation.

Surface Water: The spillage is adequately controlled to prevent release to surface water. The potential for past and continuing release is consequently low.

Subsurface Gas: Due to unit design, there is a low potential for subsurface gas generation.

## 5.4 Open Storage and Loading Areas (SWMUs 20 through 33)

There are five open storage and loading areas at the site. These are the latex pits pad, the heat exchanger bundle cleaning pad, the tank car cleaning and loading area, and the waste coke storage pad.

### 5.4.1 SWMU 29 - Processed Neoprene and Latex Wastes

#### 5.4.1.1 Unit Summary

Unit Description:

As shown in Photograph #27, mounds of latex/neoprene waste are palleted alongside the margin of the dtich (SWMU 19) which borders the aeration ponds (SWMU 11). The ditch conveys liquid to the Splitter Box (SWMU 14). These palleted mounds did not exhibit any odors or leachate. They did not appear to decompose in the sunlight. There were no stains underlying the pallets.

Dates of Operation: The facility representative indicated that wastes are placed in the area intermittently. He did not recall when the practice began, nor indicated when it would be discontinued.

Wastes Managed: Latex and Neoprene wastes are stored at the site. These wastes may contain hazardous organic constituents.

Release Controls: There were no apparent release controls. ✓

History of Release: There are no documented or observed releases. ✓

5.4.1.2 Conclusions Regarding Potential for Release

Air: Based on field observation and the limited amount of wastes, there appears to be low potential for past and continuing release to the air.

Groundwater/Soils: Based on the lack of observable staining, and the lack of any decomposition of the waste, there appears to be a low potential for release to the soils and to the groundwater.

Surface Water: While the unit is adjacent to surface drainage that has direct access to the Bayou, the absence of release evidence indicates a low potential for past and continuing release to this media.

Subsurface Gas: Due to unit operation and the nature of the waste, there appears to be a low potential for past and continuing gas generation.

### 5.4.2 SWMU 30 - Latex Pits Pad (Reference 64)

#### 5.4.2.1 Unit Summary

Unit Description: The Latex Pits Pad (see Photograph #39) is located next to the Latex Pits (SWMU 13). It is a concrete, above-grade pad, slightly sloped to drain liquids from stored wastes. These liquids drain off into the latex pits. The pad appeared to be about 25 feet wide, 50 feet long, and about 6 inches thick, with a partial curbing extending from the ground surface to about 6 inches above the pad surface (1 foot high total). This curb extends around the pad opposite to where the pits are located. At the time of the VSI (64), there was no waste on the pad, except for visible residues amounting to about 1 inch in some areas. The pad is uncovered and unlined. There were no visible cracks or breaks. Solid wastes/sludges coagulated in the adjacent pits are excavated and loaded into bins stored on the pad and eventually hauled to a landfill. As shown in the aforementioned photograph, the bins are approximately 25 cubic yard open-topped rolloffs without lining. One was spotted at the unit and contained a full load of the excavated material.

Dates of Operation: The pad appeared to be of fairly recent construction, perhaps in the late 1970s. There is no plan for closure (64).

Wastes Managed: The unit receives industrial solid wastes from the Neoprene Finishing Plant and from the Latex Pits.

Release Controls: Operations occur on the concrete pad which is sloped to convey liquids to the pits. Two sides have a concrete curb to control runoff in those directions. The slab

appears to be about 6 inches thick. The unit is unlined and uncovered from the elements. There did not appear to be any cracks or worn areas in the concrete (64).

History of Release: There are no documented releases associated with the unit. It is apparent from the VSI (64) that the unit has released some material to the soil outside of the unit boundaries. In addition, dried particles were observed on the unit, with the potential to be suspended into the air during windy conditions.

5.4.2.2 Conclusions Regarding Potential for Release

Air: There appears to be a moderate potential for past and continuing release of particles to the air, due to the condition of the waste and the open air design of the unit.

Groundwater/Soils: There appears to be a moderate potential for past and continuing release of constituents to the soils and groundwater from the unit due to unit operation.

Surface Water: There appears to be a low to moderate potential for direct past and continuing release to surface water given the presence of partial curbing, the sloping of the pad to the adjacent pits, and the presence of wastewater treatment facilities used by Denka.

Subsurface Gas: There did not appear to be a potential for past or continuing release to this media since the small amount of spillage to soils is essentially at the surface.

### 5.4.3 SWMU 31 - HEB Cleaning Pad (Reference 64)

#### 5.4.3.1 Unit Summary

Unit Description: Heat exchanger bundles are cleaned on this covered, concrete pad located adjacent to the Imhoff Pond (SWMU 4). The unit is at grade, covered with a pole barn-like roof, without sides, and with a concrete base of 1 foot thickness (see Photograph #51). A series of channels drain fluids from the cleaning pad to the Imhoff Pond. At the time of the VSI (64), there was no observed cleaning activity at the unit. However, empty drums and equipment were stored here.

Dates of Operation: The unit was built in the 1970s. There is no plan for closure (64).

Wastes Managed: Since the unit is used in the cleaning of HE bundles, it would appear that hazardous constituents may be present in the cleaning residues. As the aforementioned photograph shows, there is extensive staining along the side of the pad leading into the Imhoff Pond. This staining indicates oily residues.

Release Controls: The unit has a roof, concrete base, and drains into the Imhoff Pond. No other controls are employed.

History of Releases: There is no documentation of releases. At the time of the VSI, prior releases, indicated by staining, were evident on the soil between the pad and Imhoff Pond.

5.4.3.2 Conclusions Regarding Potential for Release

Air: There is a potential for volatilization of oily constituents which saturate the ground leading to the Imhoff Pond. The presence of this waste indicates a moderate potential for past and continuing release to the air.

Groundwater/Soils: Due to the observed releases, there exists a moderate potential for past and continuing release to the soil. Given the relatively high water table and the permeability of the soils, there is a moderate potential for past and continuing release to the groundwater.

Surface Water: Since the unit drains into the Imhoff Pond, there is a low potential for direct past and continuing release to the surface water in the area.

Subsurface Gas: Given the heavy staining and the apparent presence of volatiles, there is a moderate potential for generation of subsurface gas in the saturated zone beneath the draining channels. This gas will probably migrate out of the zone and into the open air. It is unlikely that pockets of gas will remain underneath the structure.

### 5.4.4 SWMU 32 - Tank Car Loading Area (Reference 64)

#### 5.4.4.1 Unit Summary

Unit Description: The Tank Car Loading Area is located at the Neoprene Warehouse. At present, rail cars are stationed here temporarily, prior to off loading and loading. In the past, this area was used to wash tank cars. The area is about 50 feet wide, 75 feet long, and covered with sea shells as shown in Photograph #19. Two rail tracks are located at the area.

Dates of Operation: The washing operation occurred in the 1970s. These activities were discontinued prior to 1981.

Wastes Managed: Tank car cleaning residues and oily tank bottoms were allowed to drain to the bare surface. Hazardous constituents were potentially involved.

Release Controls: There were no controls employed to restrict release of wash wastewaters.

History of Releases: There was no documented release of wastes or constituents. However, staining of the ground in and around the immediate area was observed during the VSI.

#### 5.4.4.2 Conclusions Regarding Potential for Release

Air: There appeared to be confirmed releases of oily substances on the ground next to the tank cars. This oily material was probably more extensive in the past when tank car washing was routine. This potential is less today since the

practice no longer exists at the facility. The continuing potential is considered low since volatilization is most likely completed.

Groundwater/Soils: There appears to be a high likelihood that past spillage and washdown has saturated the underlying soils. As a result, depending on the nature of the wastes, there is a high potential for groundwater contamination since the soils are moderately permeable, and the groundwater table is relatively shallow.

Surface Water: Depending on the nature of the wastes, there would appear to be a moderate potential for surface water release in the past. This potential is considered low in terms of continuing release as the practice has been discontinued.

Subsurface Gas: There would appear to be a moderate potential in the past of subsurface gas generation due to the potential presence of volatile oily chemicals in the washdown and residues.

### 5.4.5 SWMU 33 - Coke Storage Pad (Reference 64)

#### 5.4.5.1 Unit Summary

Unit Description: The Coke Storage Pad is located next to the Caustic unloading area. The concrete pad is constructed of reinforced concrete, is sloped to promote drainage, and has curbing on three sides to direct runoff to the drain system. The pad does not have a cover. A sign indicating the purpose of the unit was found laying on the ground. The pad is used to locate 25 cubic yard, roll-off bins. These bins contain the coke, and when full, are removed by a contractor for industrial waste disposal. The bin shown in Photographs #5 and #6 did not have a cover.

Dates of Operation: The pad was constructed in the 1970s. There is no plans for closure.

Wastes Managed: The unit is used to hold nonhazardous waste coke in bins along with assorted trash. The coke contains organic constituents.

Release Controls: As noted above, the unit is a concrete pad, sloped and curbed on three sides to direct runoff to the Skimmer Pit (SWMU 12).

History of Releases: There was no documented evidence of release. At the VSI (64), there was spillage of bin contents onto the pad surface. The pad itself appeared stained. There would also appear to be a low likelihood for wind action to carry away particulates of material as the coke was granular in nature.

5.4.5.2 Conclusions Regarding Potential for Release

Air: There would appear to be a low potential for past and continuing release although the bin is open to wind action. There was no evidence that the local wind is of sufficient strength to carry away the granular coke.

Groundwater/Soils: There would appear to be a low potential for past and continuing release due to the design of the unit.

Surface Water: There would appear to be a low potential for past or continuing release since drainage of the unit is to a drain that connects to the Skimmer Pit.

Subsurface Gas: There would appear to be a low potential for past or continuing release due to unit design.

## 5.5 Tanks (SWMUs 34 through 36)

There are five tanks listed as SWMUs at the Denka Facility, none of which are RCRA-regulated.

### 5.5.1 SWMU 34 - Tanks 412 and 413

#### 5.5.1.1 Unit Summary:

Unit Description: These two storage, non RCRA-regulated tanks are located in the far southwest corner of the facility. The units are above ground, open-top tanks. Each tank is 100 feet in diameter and 12 feet in height with an estimated 750,000 gallon capacity each. Each tank sits on a concrete pedestal and is constructed of carbon steel with a concrete internal liner. Currently, only tank 413 is in operation. Tank 412 is empty but plans for operation of this unit are underway. A photograph was taken of the unit, but was not developed due to technical problems at the lab.

Dates of Operation: The tanks were constructed and put into operation in 1969. No closure is planned.

Wastes Managed: The units are operated for the storage of aqueous monomer waste streams and polymer sludge. The material was originally caustic. However, since the late 1970's, materials stored in these tanks have been neutralized prior to storage; thereby, reducing effects of caustic (high pH) on the tank walls. The wastes are eventually transferred to the biological treatment ponds (SWMU 11). Aeration Ponds

Release Controls: A 1-foot concrete liner was recently placed in each unit to upgrade the integrity of tank walls. The tanks are equipped with shutoff pumps and flow is controlled manually. Overflow is controlled by increasing the flow from the tanks to the aeration ponds. There is no secondary containment system around this unit.

History of Releases: The units have had a history of spillage, principally prior to installation of the liner and neutralization of the waste. During the VSI, valves on tank 413 were being repaired. These repairs resulted in a constant flow of waste (several gallons per minute) being released to the ground, which eventually flowed through the Splitter Box (SWMU 14) to the storm water pond (SWMU 6).

6.5.2.2 Conclusions Regarding Potential for Release

Air: Due to the nature of the waste and unit design (open-top), there is a moderate potential for past or continuing release to this media.

Groundwater/Soils: Due to past practices and the present spillage, there appears to be a moderate potential for past and continuing release to these media.

Surface Water: Due to the drainage of spillage to the Storm Water Pond (SWMU 6), there is a low potential for past and continuing release to this media.

Subsurface Gas: Due to the amount of spillage and the possible presence of organics, moderate potential for past or continuing generation of subsurface gas exists.

## 5.5.3 SWMU 35 - Tank 415

### 6.5.3.1 Unit Summary:

Unit Description: Tank 415 is located immediately east of tank 412 in the southwest corner of the facility. The tank is on non-RCRA-regulated active unit. The tank is open-top, above ground and has an estimated capacity of 40,000 gallons. The unit is constructed of carbon steel and is 12 feet tall by 10 feet in diameter. The tank is used as a flow through device rather than a storage unit, and conveys drum sludge from SWMU 9 to off site treatment. A photograph was taken but did not develop due to technical problems at the photo lab.

Dates of Operation: The unit was installed in 1971. There are no plans for closure.

Wastes Managed: The tank is designed as a flow through device to draw alum sludge from the alum clarifiers (SWMU 9) and convey it to other treatment at Gulf Coast Waste Disposal facility. There are no known hazardous constituents in the waste managed in this unit (64).

Release Controls: The tank is designed with level and flow control systems. There are pump controls on discharge streams which stop wastes from being sent off site. There are control valves at the alum clarifiers and aeration ponds to cease pumping individual waste streams as needed. There is no secondary containment system dedicated to this unit.

History of Releases: There are no documented releases from this unit.

5.5.3.2 Conclusions Regarding Potential for Release

Air: Due to the nature of the waste, there appears to be a low potential for past or continuing release to this media.

Groundwater/Soils: Due to unit design and the nature of waste, there appears to be a low potential for past or continuing release to this media.

Surface Water: Due to unit design, there appears to be a low potential for past or continuing release to this media.

Subsurface Gas: Due to unit design, there appears to be a low potential for past or continuing release to this media.

## 5.5.4 SWMU 36 - Two Clarifiers (Reference 64)

### 6.5.4.1 Unit Summary

Unit Description: The two clarifiers are located immediately west of the aeration ponds (SWMU 11). The two units are adjacent to each other, and they are used to clarify sludge out of treated effluent. The two clarifiers are circular, concrete tanks, that are open-topped, mostly below-grade, and unlined. The unit is generally filled to near capacity, and overflow is controlled by a rectangular weir located at the center of each unit. Effluent is then pumped to an outfall. The visible concrete appeared in good condition, with no cracks or severe erosion. The units are each fed by inlet piping located below grade. Outlet piping is located below grade also. A photograph was taken but it did not develop.

Dates of Operation: The units were constructed in 1965. There is no plan for closure.

Wastes Managed: The units manage effluent pumped from the aeration ponds. The treated effluent is clarified to remove any suspended solids. The solids are collected at the bottom of the clarifiers, and then pumped back into the aerators for further treatment.

Release Controls: The units, as described above, are prevented from overflowing by a weir located in the center of each unit that allows clarified water to flow over into a separate piping system. This clarified liquid is discharged to Sim's Bayou through the NPDES discharge outfall.

History of Releases: There is no documented evidence of release from these units. At the time of the VSI, there were no visible signs of overflow or other release.

5.5.4.2 Conclusions Regarding Potential for Release

Air: There would appear to be a low potential for past or continuing release to the air given the nature of the wastewater.

Groundwater/Soils: Based on unit design and the nature of the wastewater, there is a low potential for past or continuing release to these media.

Surface Water: The units are designed to control overflow. The past and continuing potential for release is consequently low.

Subsurface Gas: There is no potential for generation of subsurface gas in the past or on a continuing basis based on unit design.

## 5.6 Container Storage (SWMUs 37 through 42)

There are, six non-RCRA container storage areas on site.

### 5.6.1 SWMU 37 - Asbestos Roll-Off Bin (Reference 64)

#### 5.6.1.1 Unit Summary

Unit Description: The designated container for asbestos wastes is placed next to the Latex Trench (SWMU 16). The unit is a 25-cubic yard, unlined, roll-off bin. The unit is denoted by tape, stretched around its perimeter. Yellow flags are placed at intervals warning personnel to "keep out" as shown in Photograph #31. The flag shown in the photo is not very obvious. The bin is hauled away when full. Wastes appeared to be placed in secured plastic bags.

Dates of Operation: The unit has been operated for at least 2 years. There is plan for closure.

Wastes Managed: The unit is used to hold waste asbestos pulled from process units on site.

Release Controls: The unit has no release controls.

History of Releases: No release was documented or observed. ✓

#### 5.6.1.2 Conclusions Regarding Potential for Release

Air: Due to the nature of waste handling, there appears to be a low potential for past or continuing release.

Groundwater/Soils: Due to the nature of waste handling, there appears to be a low potential for past or continuing release.

Surface Water: Due to the nature of waste handling, there appears to be a low potential for past or continuing release.

Subsurface Gas: There is no potential for subsurface gas generation due to the nature of the waste and unit design.

## 5.6.2 SWMU 38 - Empty Drum Storage Area

### 5.6.2.1 Unit Summary

Unit Description: Located near the Neoprene Finishing Plant and adjacent to SWMU 3, Latex Waste Pile, the Empty Drum Storage Area is the designated point for storage of empty product drums plant wide. In addition, it appeared that partially filled drums of unidentified material were also placed at the unit. The unit itself covers about 100 feet by 100 feet. Most drums are empty and turned upside down to avoid collection of rainwater. A few drums, such as those identified in Photograph #30, may actually contain materials, although their contents were not always identified. Over 100 drums were estimated at the area. These drums are stored prior to drum reconditioning by a contractor.

Dates of Operation: The unit has operated intermittently since before 1980. There is no projected closure date.

Wastes Managed: Generally, only empty drums are stored. Some drums containing unidentified material were noted.

Release Controls: The unit is located on bare soil. There are no controls except for pallets and the overturning of barrels. There is no windbreak, roof, or warning signs.

History of Releases: While there have been have been no documented releases, the VSI (64) disclosed some surface soil staining. The staining appeared oily in places, and with coloration in others.

5.6.2.2 Conclusions Regarding Potential for Release

Air: The surface stains indicate some volatile materials (oily, solvents) may be present. The potential for past and continuing release is considered moderate as a result.

Groundwater/Soils: Due to this evidence of staining, the potential for soil contamination and groundwater is considered moderate.

Surface Water: Given the proximity of storm water ditches, there is a moderate potential for releases to wash directly to Sim's Bayou.

Subsurface Gas: There appears to be a low potential for past and continuing subsurface gas generation and release based on the nature of the unit.

### 5.6.3 SWMU 39 - QC Lab Waste Drum Storage Area (Reference 64)

#### 5.6.3.1 Unit Summary

Unit Description: At the QC Laboratory Building, drums of wastes are temporarily stored as shown in Photographs 20, 21, and 24, prior to handling by a waste contractor. Generally, anywhere up to two dozen drums are stored on pallets, one high, often with lids and packing. The area is not denoted for use as a waste drum storage area. There appeared to be two separate locations at the lab used for the drum storage. All storage was on asphalt or concrete. Curbing was not evident, and drainage was to a clean storm water sewer.

Dates of Operation: Drums have been stored at the laboratory since construction in the 1970s. There is no plan for closure.

Wastes Managed: There is a potential for any wastes produced plant-wide to be stored given that the testing and analytical lab services the entire plant. Drums contained hazardous constituents such as lab reagents and spent solvents.

Release Controls: The drums were packed in some cases, and most were covered with lids.

History of Releases: While no releases was documented during the PR, Photographs #20 and #24 showed drum leakage. It appeared that some drums leaked directly into a clean storm water drain.

5.6.3.2 Conclusions Regarding Potential for Release

Air: The potential for release to the air both in the past and on a continuing basis is low. This is due to the operation and nature of the wastes (mostly covered and packed).

Groundwater/Soils: There did not appear to be a potential for release to soils or the groundwater in the past or as a continuing release due to the area being covered with asphaltic concrete.

Surface Water: There is a moderate potential for past or continuing release, given the discharge to the clean storm water system that is directly accessed to the Bayou.

Subsurface Gas: There is no potential for past or continuing release due to unit design.

### 5.6.4 SWMU 40 - Spent Catalyst Storage Area (Monomer Plant) (Reference 100)

#### 5.6.4.1 Unit Summary

Unit Description: As shown in Photograph #12, this unit is located next to the Control Building for the Monomer Plant, and it is a staging and temporary storage area for up to two dozen buckets of wastes and waste drums. The buckets hold spent catalyst. The labeled drums hold spent solvents. None of the buckets are labeled or dated. The buckets are elevated on pallets. Drums are placed directly on concrete. The area drains to the Skimmer Pit via trenches.

Dates of Operation: Wastes have probably been stored at the location probably since the monomer plant was built in the 1970s. There is no plan for closure.

Wastes Handled: Spent solvents and catalysts are handled at the unit. Spent catalysts appeared to contain copper due to the coloration. A facility representative also indicated this fact.

Release Controls: There were no release controls except for the pavement.

History of Releases: No releases were documented or observed at the time of the VSI (64).

5.6.4.2 Conclusions Regarding Potential for Release

Air: There was no evident potential for past or continuing release based on the nature of the wastes and unit designed operation.

Groundwater/Soils: There was no evident potential for past or continuing release based on the nature of the wastes and unit operation.

Surface Water: There is only a low potential for past and continuing release due to the nature of the storage operation.

Subsurface Gas:

The potential for subsurface gas generation and release is low due to the nature of the unit.

5.5.5 SWMU 41 - Spent Catalyst Storage Area (Maleic Warehouse) (Reference 64)

5.6.5.1 Unit Summary

Unit Description: Containers of waste are temporarily stored at the Maleic Plant warehouse as shown in Photograph #14. Fifty-five-gallon drums are elevated on pallets and appeared properly labeled for disposal or recycling. They were stacked 2-high.

Dates of Operations: This unit has been in operation since the 1970s. There is no plan for closure.

Wastes Managed: Spent catalysts are stored in the drums.

Release Controls: No special precautions appear to be taken. There was adequate ventilation, and containers appear to be properly stored.

History of Releases: There was no documented or visible evidence of release at the unit.

5.6.5.2 Conclusions Regarding Potential for Release

Air: There is no potential for past or continuing release due to unit design and operation.

Groundwater/Soils: There is no potential for past or continuing release due to unit design and operation.

Surface Water: There is no potential for past or continuing release due to unit design and operation.

Subsurface Gas: There is no potential for past or continuing release due to unit design and operation.

### 5.6.6 SWMU 42 - Roll-Off Bin at Latex Trench (Reference 64)

#### 5.6.6.1 Unit Summary

Unit Description: As shown in Photographs #35 and #37, a 25-cubic yard roll-off bin is permanently located straddled across the latex trench system (SWMU 16). As shown in Photograph #36, a wet industrial waste is sprayed into the unit via a pipe suspended above the ground. The material was aromatic (organics), and liquids dripped from the unit into the underlying trench (SWMU 16). The bin was uncovered and unlined.

Dates of Operation: The bin has been stationed at the trench since the 1970s. There is no plan for closure.

Wastes Managed: The facility representative was unable to identify the constituents in the waste. The Neoprene Finishing plant is the source. There probably are organic constituents in the waste.

Release Controls: The unit discharged liquid into the Latex Trench (SWMU 16).

History of Releases: The entire area was covered in residue. It was impossible to identify whether the roll-off was a principal source. The unit discharged liquid into the Latex Trench (SWMU 16).

#### 5.6.6.2 Conclusions Regarding Potential for Release

Air: There is a high potential for past and continuing release given the design and operation of the unit, and the aromatic nature of the waste.

Groundwater/Soils: Given the unit operation and possible presence of organic constituents, there is a high potential for release to soils at the groundwater on a past and continuing basis.

Surface Water: Due to the proximity of clean storm water drainage ditches and the presence of residue throughout the remedial area, there is a moderate potential for constituents to release to surface water on a past and continuing basis.

Subsurface Gas: Due to the aromatic nature of the waste, there is a low likelihood that volatile constituents will migrate into the subsurface and generate gas.

## 5.7 Incineration (SWMU 43)

### 5.7.1 SWMU 43 - Waste Gas Incinerator (References 27 and 64)

#### 5.7.1.1 Unit Summary

Unit Description: This non RCRA-regulated incinerator is used to burn off gas from the production of maleic anhydride. It is located near the Maleic Process Plant, adjacent to the surface impoundment area. The unit is regulated by the Texas Air Control Board. The off-gases are taken off reactors and channeled through scrubber towers prior to incineration. A stack is used to disperse emissions. The unit burns the off gas at a rate of 300,000 pounds per hour. When the energy content of the gas falls below 12,000 Btu/lb., then natural gas (methane) is injected to raise the energy content of the gas. A destruction and removal efficiency (DRE) of about 97 percent is achieved according to facility representatives.

Dates of Operation: The unit was installed in 1975. It has operated continuously since then.

Wastes Managed: Off gases from the maleic anhydride plant are burned in the unit.

Release Controls: A DRE of 97 percent is maintained.

History of Releases: There are no known documented releases. ✓ None were observed during the VSI.

5.7.1.2 Conclusions Regarding Potential for Release

Air: Air releases from this unit are regulated under TACB.

Groundwater/Soils: Due to the nature of the unit and the wastes managed, there is no potential for past or continuing release to these media.

Surface Water: There does not appear to be a potential for past or continuing release to this media due to facility design.

Subsurface Gas: There is no potential for past or continuing release due to the nature of the wastes handled and the unit design.

## 6.0 AREAS OF CONCERN

This section of the PR/VSI report identifies 7 major areas of concern that were observed during the VSI.

### 6.1 Area of Concern A - Outside Storage Area

Outside the warehouse storage building, located just east of the aeration ponds, are solvent product drums that appeared for the most part to be in good condition. However, there were two drums that were not on pallets and that were turned over on their sides, and lying on the bare soil. As shown in Photograph #25, the area is stained heavily with an oily substance that probably came from the overturned drums. The stained area drains apparently down a slope and into the ditch adjacent to the aeration ponds (SWMU 11) which leads to the Splitter Box (SWMU 14). The area had no other containment.

### 6.2 Battery Storage Area

Located next to the solvent storage area sump (SWMU 22) is temporary storage of used batteries (see Photograph #3). The batteries appeared to be in good condition, although Denka is looking to find a recycler for the used batteries. The batteries were stored on the pavement, without the benefit of secondary containment. There was also an open solvent container used by Denka employees for supply of work solvent.

## 6.3 Area of Concern C - Oil Spill on Building

As shown in Photograph #34, there is an oil slick apparent on the side of the Neoprene Finishing Plant building. It appeared that the slick originated in a blower atop the building. The thick, viscous liquid was fresh; along the ground surface, it had pooled and saturated the soil.

## 6.4 Area of Concern D - Maleic Anhydride Stream Sampling Station

As shown in Photograph #28, there appeared to be an inadvertent spill of maleic waste at the sampling station, due to the presence of maleic waste on the bare soil surface underlying the piping, and the apparent newer pipe section and flanges that could indicate a replaced pipe or flange. The material on the ground had not been cleaned up.

## 6.5 Area of Concern E - Diesel and Gasoline Tank Storage Area

Near the Tanks 412 and 413 were located some tanks used to store gasoline and diesel fuel for dispensing to employee work vehicles. The tanks did not employ any spill protection devices, and were observed to have leaked fuel to the soil. The photograph of the AC did not develop.

## 6.6 Area of Concern F - Dispensing Station for Solvents and Oils

As shown in Photographs #22 and #23, solvents are stored in 55-gallon drums near the facility QC laboratory. As shown an employee is tapping the acetone drum for material. There is apparent spillage on the pavement which has resulted because a

drip pan has not been used. The spillage appears to course over to a drain, which goes to the clean storm water drainage system. In Photograph #22, a sign is posted warning against dumping of hazardous material into the drain. However, stains on the pavement show release have and are occurring on an intermittent basis.

## 6.7 Area of Concern G - Two Recovered Chloroprene Tanks

The two recovered chloroprene tanks are located immediately north of the neoprene warehouse. The tanks are nonregulated, active storage units. The tanks are horizontal above ground and enclosed in a diked concrete pad to collect spills (Photograph #18). The tanks have an estimated capacity of 30,000 gallons each. The units are stainless steel. Waste chloroprene from the adjacent polymer building is pumped to the units for eventual recycling.

During the VSI, it was apparent that significant spillage has occurred in the side diked concrete pad area.

# 7.0 CONCLUSIONS AND RECOMMENDATIONS

## 7.1 Solid Waste Management Units

### 7.1.1 SWMU 1 - Maleic Pond - Upper Section

Suggested Further Action: RCRA Facility Investigation (RFI)

Reasons: This RCRA-regulated unit managed hazardous wastes/ constituents, and was closed as a disposal unit. The area was capped, graded, and seeded at closure; however, there was no vegetation observed during the VSI. Groundwater monitoring results have shown contamination in wells downgradient of the surface impoundment area after it's closure.

### 7.1.2 SWMU 2 - Process Waste Storage Area

Suggested Further Action: Soil sampling

Reasons: It is not known whether or not hazardous constituents are present in the area. A possible release of waste was noted during the VSI along a channel within the Area. The stain constituents of the waste require identification. If they are hazardous, the area should undergo an RFI.

7.1.3 SWMU 3 - Waste Pile

Suggested Further Action: Soil sampling

Reasons: It is not known whether hazardous constituents are present in the area. Staining indicating possible contamination was noted within the area during the VSI. The constituents of the stain require identification. If hazardous, the area should undergo a RFI.

7.1.4 SWMU 4 - Imhoff Pond

Suggested Further Action: RFI

Reasons: During the VSI, widespread staining and release of oily material in the pond. This RCRA-regulated unit is scheduled to be clean-closed, and is to then be operated as a nonhazardous impoundment.

7.1.5 SWMU 5 - Maleic Pond - Lower Section

Suggested Further Action: Soil sampling along the bank of the unit

Reasons: This currently RCRA-~~regulated~~ unit is scheduled for the closure for which a demonstration that hazardous waste or constituents are not managed in the unit will be provided by the facility. For this demonstration, the facility is testing for corrosivity and chromium only. Additional sampling is suggested to detect the presence or absence of other expected hazardous constituents in the unit, or in the soil adjacent to

the unit. If detected, an RFI is suggested for the unit. During the VSI, staining was evident and gas was detected escaping from subsurface soils (bubbles were viewed escaping from the soil).

7.1.6 SWMU 6 - Lake Hausenstein

Suggested Further Action: Soil sampling at the inlet pipe

Reasons: Storm water entering this RCRA-regulated unit is reportedly uncontaminated. During the VSI, the liquid was cloudy white. Soil sampling is suggested underneath the inlet pipe to confirm the presence of hazardous constituents. If hazardous constituents are found, an RFI is suggested.

7.1.7 SWMU 7 - Solar Pond

Suggested Further Action: No further action is suggested at this time

Reasons: The unit has accepted nonhazardous, clarifier sludge in the past and on at least one occasion(s) has overflowed its dike. There were no hazardous constituents involved, however.

7.1.8 SWMU 8 - Anaerobic Pond

Suggested Further Action: No further action is suggested at this time

Reasons: The unit has accepted wastes in the past and on at least one occasion(s) has overflowed its dike. Wastes did not contain any hazardous constituents.

7.1.9 SWMU 9 - Alum Clarifiers

Suggested Further Action: No further action is suggested at this time

Reasons: Due to unit design and the nature of the wastes, no release of hazardous waste or constituents is expected to have occurred or be continuing to occur at this unit.

7.1.10 SWMU 10 - Two Boiler Blowdown Ponds

Suggested Further Action: No further action is suggested at this time

Reasons: Due to unit design and the nature of the wastes, no release of hazardous waste or constituents is expected to have occurred or be continuing to occur at this unit.

7.1.11 SWMU 11 - Three Aeration Ponds

Suggested Further Action: No further action is suggested at this time

Reasons: Due to this RCRA-regulated unit and the nature of the wastes, no release of hazardous waste or constituents is expected to have occurred or be continuing to occur at this unit.

7.1.12 SWMU 12 - Skimmer Pit

Suggested Further Action: No further action is suggested at this time

Reasons: This unit is used intermittently. Controls adequate to prevent the release to hazardous waste or constituents to the environment appear to be employed at this unit.

7.1.13 SWMU 13 - Two Latex Pits

Suggested Further Action: RFI

Reasons: Due to observed release related to poor housekeeping practices, these units should undergo subsurface investigation to determine the extent of contamination.

7.1.14 SWMU 14 - Splitter Box

Suggested Further Action: Restrict all flow through unit to Lake Hausenstein

Reasons: Due to unit design, there is a moderate potential for past and continuing release.

7.1.15 SWMU 15 - RCP Pit

Suggested Further Action: Soil sampling

Reasons: Due to observed releases related to poor housekeeping practices, the unit has demonstrated a high potential for release of hazardous waste or constituents to the subsurface.

7.1.16 SWMU 16 - Latex Trench System

Suggested Further Action: RFI

Reasons: Due to observed releases related to poor housekeeping practices and possible downgradient contamination, the unit has demonstrated a high potential for release of hazardous waste or constituents to the subsurface.

7.1.17 SWMU 17 - Chemical Trench

Suggested Further Action: No further action is suggested at this time

Reasons: The unit is used intermittently. Controls adequate to prevent the release to hazardous waste or constituents to the environment appear to be employed at this unit.

7.1.18 SWMU 18 - Clean Storm Water Drainage Ditch

Suggested Further Action: Soil sampling

Reasons: Due to the presence of wastes and oily stains in the unit (see Photograph No. 15), soil and subsurface soils contamination is expected. The unit has no release controls.

7.1.19 SWMU 19 - Ditch Alongside Aeration Ponds

Suggested Further Action: Soil sampling

Reasons: Due to the presence of wastes and oily stains in the unit (see Photograph No. 27), soil and subsurface soils contamination is expected. The unit has no release controls.

7.1.20 SWMU 20 - Ditch Alongside Rail Line of Monomer Plant

Suggested Further Action: Soil sampling

Reasons: Due to the presence of wastes and oily stains (see Photograph No. 13), soil and subsurface soils contamination should be investigated. The unit has no release controls.

7.1.21 SWMU 21 - Monomer Plant Sump

Suggested Further Action: No further action is suggested at this time

Reasons: The unit is used intermittently. Controls adequate to prevent the release to hazardous waste or constituents to the environment appear to be employed at this unit.

7.1.22 SWMU 22 - Solvent Storage Sump

Suggested Further Action: No further action is suggested at this time

Reasons: The unit is used intermittently. Controls adequate to prevent the release to hazardous waste or constituents to the environment appear to be employed at this unit.

7.1.23 SWMU 23 - Lift Station at Lake Hausenstein

Suggested Further Action: No further action is suggested at this time

Reasons: The unit is used intermittently. Controls adequate to prevent the release to hazardous waste or constituents to the environment appear to be employed at this unit.

7.1.24 SWMU 24 - Sump at Tank 402

Suggested Further Action: No further action is suggested at this time

Reasons: The unit is used intermittently. Controls adequate to prevent the release to hazardous waste or constituents to the environment appear to be employed at this unit.

7.1.25 SWMU 25 - Abandoned Sump at Tank 413

Suggested Further Action: No further action is suggested at this time

Reasons: Based on the VSI observation, the unit has low potential for release to any media.

7.1.26 SWMU 26 - Drum/Tanks Bay

Suggested Further Action: No further action is suggested at this time

Reasons: Area appeared generally free of release evidence. Adequate release controls are employed at present.

7.1.27 SWMU 27 - Caustic Unloading Area

Suggested Further Action: Soil sampling

Reasons: Unit design now decreases continuing potential for release. In the past, spillage was reportedly routine.

7.1.28 SWMU 28 - Tank Truck Unloading Pad

Suggested Further Action: No further actions are suggested at this time

Reasons: Adequate release controls appear to be employed.

7.1.29 SWMU 29 - Processed Neoprene and Latex Material on Pallets

Suggested Further Action: Relocate the waste storage area and decontaminate the area

Reasons: In the current state, the waste may be a source of contamination to the clean storm water system, hence causing discharge of constituents directly to Sim's Bayou.

7.1.30 SWMU 30 - Latex Pits Pad

Suggested Further Action: Soil sampling

Reasons: Due to operational practices, the unit has some potential for release to the soil surrounding the pad, and for particles to be dispersed by wind.

7.1.31 SWMU 31 - HEB Cleaning Pad

Suggested Further Action: Soil sampling

Reasons: It is not known whether hazardous constituents are present in the area. Staining indicating possible contamination was noted during the VSI within the area adjacent to the unit. The constituents of the stain require identification. If they are hazardous, the area should undergo an RFI. (504)

7.1.32 SWMU 32 - Tank Car Loading Area

Suggested Further Action: Soil sampling

Reasons: Due to past operational practices the unit has some potential for release to the subsurface.

7.1.33 SWMU 33 - Coke Storage Area Pad

Suggested Further Action: No further action is suggested at this time

Reasons: The unit appears to have adequate controls to prevent the release of hazardous waste or constituents to the environment.

7.1.34 SWMU 34 - Tanks 412 and 413

Suggested Further Action: Soil sampling

Reasons: During the VSI, the unit was discharging waste that is believed to contain minimal quantities of hazardous constituents. Soil sampling is suggested, because of the one-time spill, to verify the absence of hazardous constituents.

7.1.35 SWMU 35 - Tank 415

Suggested Further Action: No further action is suggested at this time

Reasons: Adequate release controls appear to be employed.

7.1.36 SWMU 36 - Two Clarifiers

Suggested Further Action: No further action is suggested at this time

Reasons: Adequate release controls appear to be employed.

7.1.37 SWMU 37 - Asbestos Roll Off Bin

Suggested Further Action: No further action is suggested at this time

Reasons: Adequate release controls appear to be employed.

7.1.38 SWMU 38 - Empty Drum Storage Area

Suggested Further Action: Soil sampling

Reasons: It is not known whether hazardous constituents are present in the area. Possible contamination was noted at the VSI within the area. The stain constituents require identification. If hazardous, the area should undergo an RFI.

7.1.39 SWMU 39 - QC Laboratory Waste Drum Storage Area

Suggested Further Action: Secondary containment is suggested

Reasons: Due to the presence of staining indicating prior releases, there appears a need to place the drum area in secondary containment.

7.1.43 SWMU 43 - Incinerator

Suggested Further Action: No further action is suggested at this time

Reasons: Adequate release controls appear to be employed at this unit.

7.2 Areas of Concern

7.2.1 Area of Concern A - Outside Storage Area

Suggested Further Action: Clean up of the spillage, and documentation that contamination has been removed.

Areas of Concern B - Battery Storage Area

Suggested Further Action: Remove batteries

Reasons: The batteries are stored improperly, with a high potential for release. Open soil is apparent behind the storage area. If a storage area is selected, it should be properly constructed to control releases of battery acid.

Area of Concern C - Oil Spill on Building

Suggested Further Action: Clean up spillage

Reasons: The spillage appeared to be saturating the ground surface. This material should be cleaned up immediately to avoid subsurface contamination. The source of the spillage should be located and repaired/replaced.

Area of Concern D - Maleic Anhydride Stream Sampling Station

Suggested Further Action: Clean up spill

Reasons: Spillage of maleic waste is source of hazardous constituents to the subsurface.

Area of Concern E - Diesel and Gasoline Tank Storage Area

Suggested Further Action: Clean up and install drip pans

Reasons: An observed release was documented during the VSI.

Area of Concern F - Dispensing Station for Solvents and Oils

Suggested Further Action: Install a drip pan

Reasons: In the past, there has been direct release of hazardous constituents to the clean storm water system. Installation of a drip pan can easily prevent continuing release.

Areas of Concern G - Two Recovered Chloroprene Tanks

Suggested Further Action: Check integrity of containment.

Reasons: Due to poor housekeeping practices, the paved diked containment should be checked for integrity to determine the potential for release to the subsurface.

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# ATTACHMENT 1

## VISUAL SITE INSPECTION PHOTO LOG

## INTRODUCTION

A visual site inspection (VSI) of Denka Chemical Corporation's Houston facility was conducted by representatives of US EPA Region VI on July 20 and 21, 1987. The objectives of the VSI were to verify and determine the location of all solid waste management units (SWMUs), to visually inspect each SWMU, and to enable EPA representatives to attain a technical understanding of current and historical facility processes and waste flows.

Photographs of each SWMU and Area of Concern were taken to document conditions at the facility and waste management procedures used. No samples were taken during the site visit. Prior to the VSI, a site safety checklist was completed and it was determined that for the VSI, Level D personal protection was all that was required.

The following participated in the VSI:

Michael Huls - Work Assignment Manager
Eric White - Principal Investigator
Paula Mrozek - Principal Investigator
Al Besozzi - Denka Superintendent Industrial Hygiene
Bob Hinkson - Denka Manager, Quality Assurance

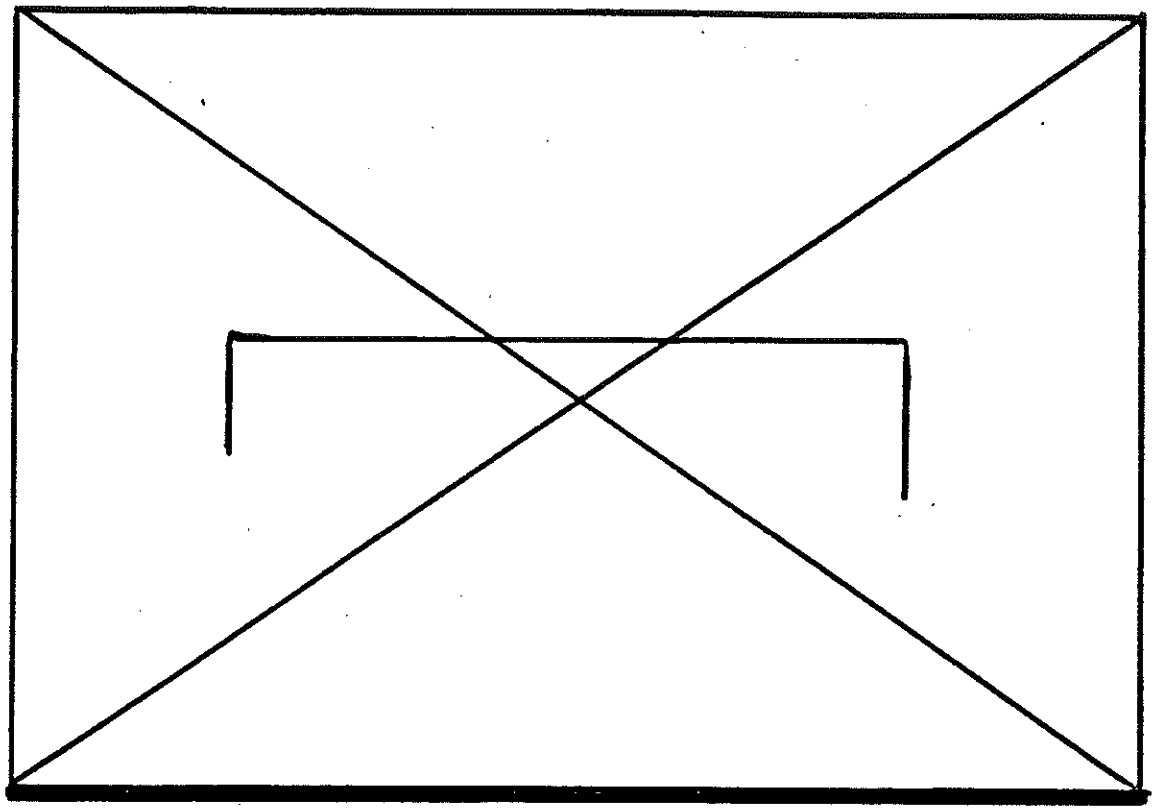
## SITE INVESTIGATION

Participants arrived at the plant on the Monday morning, July 20, 1987, at 9 AM. An initial briefing was held with the facility representatives. The briefing was held to discuss the purpose of the VSI and the RFA process, and to resolve any questions the RFA team had with respect to information discovered during the PR. The meeting adjourned at about 2 PM that afternoon.

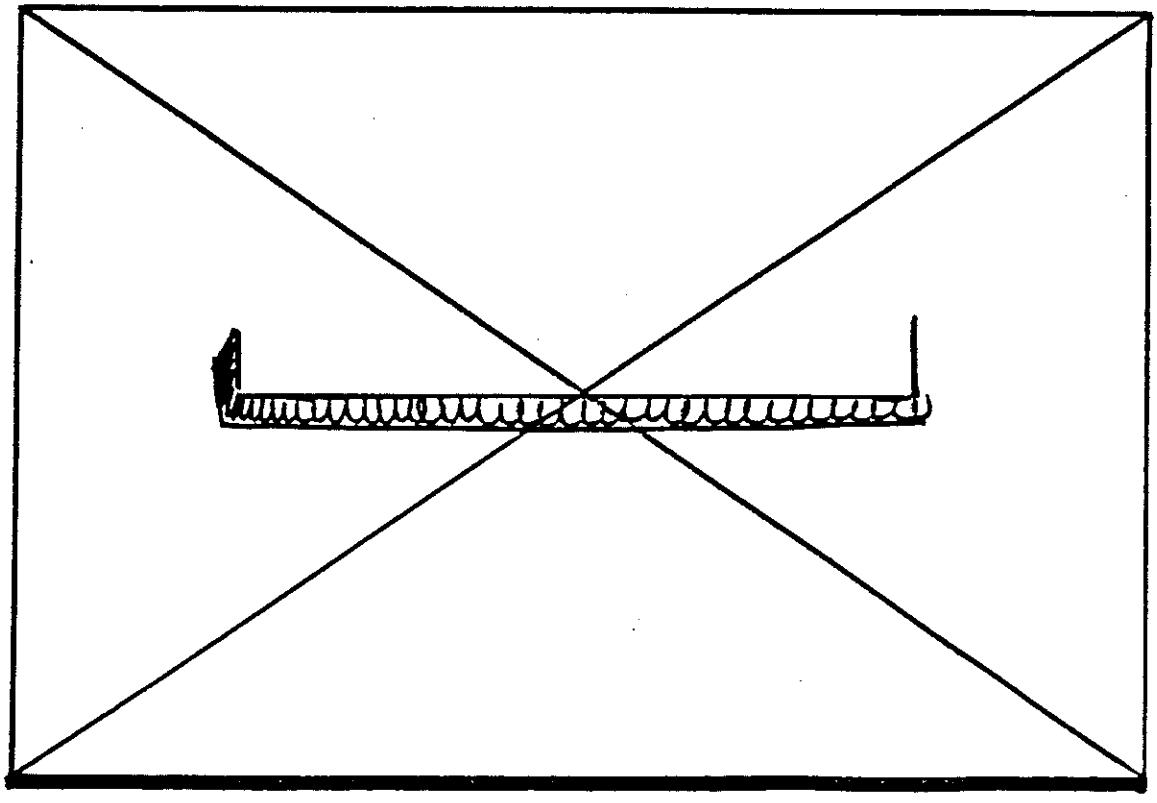
The following morning, the facility tour was conducted, beginning at 8 AM. The weather was clear and sunny, with no discernible wind, and moderate humidity. Temperatures reached about 93 degrees F.

Photographs were taken of all of the facility SWMUs and Areas of Concern by Michael Huls using a Pentax K1000 35 mm camera with a 35-70 mm lens. No special filters were used. The film was Kodak 100 ASA VRG film.

The field log is provided in Attachment 2 following the captioned photographs. It is noted that photographs 1, 2, 40, 42 through 46, and 54 were unable to be shown since they were misdeveloped by the photolab.



SWMU 26 – Drum/Tanks Bay. Photograph was misdeveloped and is not included.



SWMU 22 – Solvent storage area sump. Photograph was misdeveloped and is not included.